

Remarks

The Official Action of May 3, 2005 has been carefully considered. Applicant appreciates the Examiner's thorough review of the application. The following changes and remarks are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

Claims 1-4 remain in the present application and are believed to be in condition for allowance. Claims 1 and 3 have been amended for clarification. Support for these claim amendments can be found within the specification and drawings. Claims 5-16 has been added. As set forth below, it is believed that claims 1-16 are in a condition for allowance.

In the Official Action, the Examiner rejects claims 1 and 3 under 35 U.S.C. §102(b) as being clearly anticipated by Sawyer (U.S. Patent No. 1,531,983), Piper (U.S. Patent No. 2,698,915) or Adie (U.S. Patent No. 3,043,730). The Examiner asserts that each of the references disclose a composite of at least three layer wherein ridges are formed on the at least one surface of the layers and wherein the ridges extend in at least two different directions.

Applicant submits, however, that the composite articles defined by claims 1 and 3 are not anticipated by and are patentably distinguishable from Sawyer, Piper or Adie. The rejection is therefore traversed for the reasons stated more fully below. Reconsideration is respectfully requested.

Independent claim 1, from which claims 2-4 depend, recites a composite article of manufacture formed from at least three sheets of material laminated to one another. Each of the sheets has first and second surfaces. At least one surface of each of the sheets has a

plurality of spaced-apart ridges which extend in a predetermined direction along the plane of the at least one surface. Each of the pluralities of ridges are arranged so as to nest between a plurality of ridges on the adjacent sheet. The plurality of ridges extend in at least two different predetermined directions.

Sawyer discloses a method of attaching a plastic sheet material to a block of wood (page 1, lines 10-12). Moreover, Sawyer teaches having grooves placed in the wood block where a plastic in a flowable condition is then applied to the surface with the grooves. The plastic is then placed under pressure to allow it to flow into the grooves, so when the plastic cools it becomes attached with the wood block (page 2, lines 58-75). However, Sawyer fails to disclose a composite article of manufacture formed from at least three sheets, wherein at least one surface of each of the sheets has a plurality of spaced-apart ridges which extend in a predetermined direction along the plane of the at least one surface and that the ridges extend in at least two different predetermined directions. In contrast, the grooves formed in the block as shown in Sawyer extend along the same direction in the plane of the surfaces of the block, as such Sawyer fails to anticipate the claimed composite article.

Piper discloses a phosphor screen suitable for use as information display screens (column 1, lines 15-17). Particularly, Piper illustrates forming the screen by placing conductors in-between a base plate, phosphor layer and top plate (see Fig. 1). In contrast, the presently claimed composite article of manufacture as set forth in claim 1 recites that the surfaces of the each of the sheets has a plurality of spaced-apart ridges which extend in a predetermined direction along the plane of the at least one surface. Piper fails to teach having ridges on the surfaces of the layers of the screen, rather, Piper teaches that the conductors are simply placed between the layers and do not form part of the surface of any of the layers. As

such, Piper does not anticipate the claimed composite article.

Adie discloses a constructional element formed of a panel or slab of a cellular material faced on each side with a skin layer formed of a plastic material (column 1, lines 45-48). Moreover, Adie discloses that the skin layer is keyed to the panel by ribs projecting from the rear face of the skin layer and embedded in the material of the slab (column 1, lines 49-52 and Fig. 1). In contrast, the claimed composite article of claim 1 recites that each of the pluralities of ridges are arranged so as to nest between a plurality of ridges on an adjacent sheet. Adie teaches the embedding of a rib from a skin layer into a cellular material, but fails to teach a plurality of ridges arranged so as to nest between a plurality of ridges on an adjacent sheet. Moreover, the constructional element taught by Adie appears to have compartments formed when the skin layer is embedded into the foam layer because of the criss-cross construction of the ribs. Once again, this does not teach a plurality of ridges arranged so as to nest between a plurality of ridges on an adjacent sheet. As such, Adie fails to anticipate the claimed composite article.

Sawyer, Piper and Adie fail to teach the claimed composite articles as defined by claims 1 and 3. It is therefore submitted that the present inventive composite articles are not anticipated by and are patentably distinguishable from Sawyer, Piper and Adie, whereby the rejection under 35 U.S.C. § 102 has been overcome. Applicant respectfully requests reconsideration and allowance of claims 1 and 3.

Claims 2 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sawyer or Adie. The Examiner notes that neither Sawyer nor Adie teach the additional layer of claim 2 or the additional direction of a third rib in claim 4. However, the Examiner contends that Sawyer discloses that any number of surfaces can be used (page 1, lines 40-46)

and that Adie discloses that the ribs should provide sufficiently great surface area to attach the layers (column 1, lines 53-59). As such, the Examiner asserts that it would have been obvious to one having ordinary skill in the art to include additional layers or additional ribs in another direction in view of these references.

Applicant submits, however, that the composite articles defined by claims 2 and 4 are nonobvious over, and patentably distinguishable from Sawyer or Adie. The rejection is therefore traversed and reconsideration is respectfully requested.

References relied upon to support a rejection under 35 U.S.C. § 103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public. As discussed above for claim 1, from which claims 2 and 4 depend, the composite article is not anticipated by Sawyer or Adie because neither Sawyer nor Adie teach the sheets having a plurality of spaced-apart ridges which extend in a predetermined direction along the plane of the at least one surface and that the ridges extend in at least two different predetermined directions. It is therefore submitted that the present inventive composite articles as set forth in claims 2 and 4 are nonobvious and patentably distinguishable from Sawyer and Adie, whereby the rejection under 35 U.S.C. § 103 has been overcome. Reconsideration is respectfully requested.

It is believed that the above represents a complete response to the rejections under 35 U.S.C. §§102 and 103, and therefore places the present application in condition for allowance. Reconsideration and an early allowance of claims 1-16 is therefore respectfully requested.

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